

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 December 2004 (09.12.2004)

PCT

(10) International Publication Number
WO 2004/107536 A1

(51) International Patent Classification⁷: **H02K 11/04**,
5/16

Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).
MIZUNO, Mitsumasa [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP). INOUE, Hiroki [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(21) International Application Number:
PCT/JP2004/007443

(74) Agents: KAWAMIYA, Osamu et al.; AOYAMA & PARTNERS IMP Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka, 5400001 (JP).

(22) International Filing Date: 25 May 2004 (25.05.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

(26) Publication Language: English

[Continued on next page]

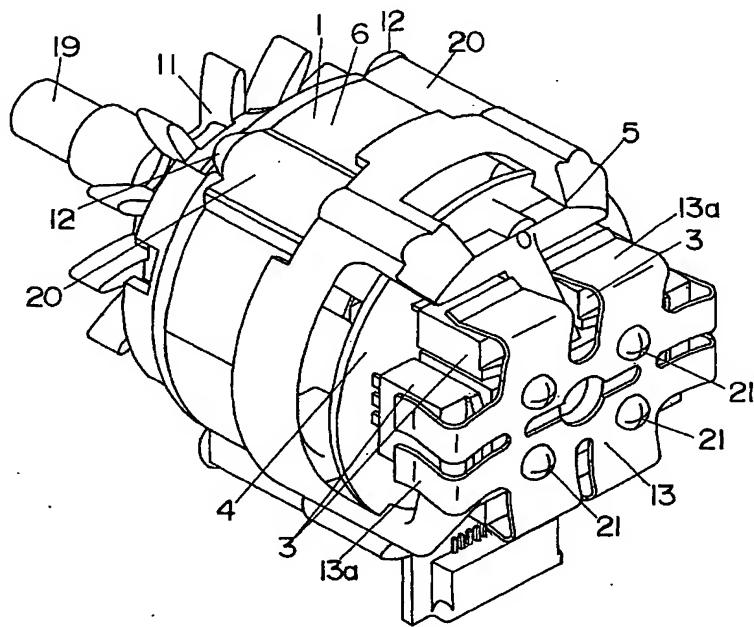
(30) Priority Data:
2003-149797 27 May 2003 (27.05.2003) JP

(71) Applicant (for all designated States except US): MATSUSHITA ELECTRIC WORKS, LTD. [JP/JP]; 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): NATSUHARA, Tsutomu [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP). SHIMIZU, Hidenori [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048,

(54) Title: BRUSHLESS MOTOR



WO 2004/107536 A1

(57) Abstract: A brushless motor has a stator 6, a rotor 7 and a circuit board 4 for controlling rotation of the rotor 7. The stator 6 has iron cores 1 and coils 2 wound around the iron cores. Switching elements 3 for turning on and off electric power to be supplied to the coils 2 for the stator are mounted to the circuit board 4. A heat-radiating member 5 is fixed to the iron cores 1.



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*